

## **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons below.

Claims 1, 2, 8-10 and 39 are amended to correct linguistic informalities. Claim 2 is further amended to remove a reference to a range of 1 to 4 carbon atoms, which range is now the subject of new claim 44.

Claims 15-36 are cancelled without prejudice or disclaimer. Claims 37-39 are withdrawn. Thus, after entry of the foregoing amendments, claims 1-14 and 37-44 will be pending.

### **I. Claim Objections**

The PTO objected to claims 9-10 and 40-41 for minor informalities. Office Action at page 2. In view of the amendments to the claims, the objection is moot.

### **II. The Claims Are Not Indefinite**

The PTO rejected claim 2 under 35 U.S.C. 112, second paragraph, for being allegedly indefinite. Office Action at page 3. In support of the rejection, the PTO asserted that the claim impermissibly encompasses broad and narrow ranges for the number of recited carbon atoms.

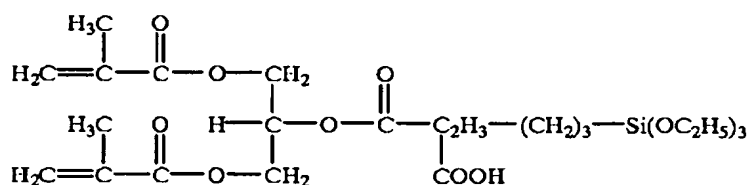
Amendments to claim 2 render the rejection moot. Therefore, Applicant respectfully requests withdrawal of the rejection.

### III. The Claims Are Novel Over Wolter

The PTO rejected claims 1-5, 7, 8, 10 and 12 under 35 U.S.C. 102(b) for alleged anticipation by U.S. 6,124,491 to Wolter *et al.* ("Wolter"). In particular, the PTO cited to Examples 1, 3, 6 and 7 of Wolter for disclosure of silane compounds that allegedly fall within the scope of claimed Structure (Ia). Because Wolter fails to support the PTO's reasoning, Applicants respectfully traverse the rejection.

#### A. Example 1 of Wolter Is Not a Compound of Structure (Ia)

Example 1 of Wolter, which is depicted below:



fails to satisfy the combined structural requirements of at least B' and Z' in present formula Ia. **First**, if one of the 'left most' carboxyl groups in Example 1, which corresponds to the former succinyl residue, is regarded as Z', then Example 1 would have no moiety that corresponds to B. This is because in Example 1 the two 'left most' carboxyl groups must be allocated between the moieties Z', B, and B' in claimed structure Ia. Yet, the definitions of B and B' do not provide for carboxyl, which prevents Example 1 from fitting within structure Ia.

**Alternatively**, if one of the methacrylate carboxy groups in Wolter's Example 1 is regarded as Z' (*i.e.*,  $-\text{CO}(\text{O})-$  group, the carbon atom of which is bonded to the radical B'), then Example 1 would leave the remainder, an allyl group, *i.e.*,  $\text{CH}_2=\text{C}(\text{CH}_3)-$ , to correspond to B'. However, the definition of B' states that when it contains a  $\text{C}=\text{C}$  bond, B' must be a methacrylate group that contains the bond. Clearly, an allyl group is not a methacrylate group. Accordingly, Example 1 of Wolter simply does not fall within claimed structure Ia.

**B. Examples 3, 6 and 7 of Wolter Also Are Not Compounds of Structure (Ia)**

Example 3 of Wolter teaches complexation of the compound of Example 1 with  $\text{Zr(OPr)}_4$ . Example 6 of Wolter teaches similar complexation of the compound of with dibutyltindimethylate. Example 7 describes in a first step the reaction between glycerine-1,3-dimethacrylate with 3-isocyanatopropyltriethoxysilane in the presence of dibutyltindilaurate as additional catalyst. The resulting product is mixed with 1,12-dodecanedioldimethacrylate and the zirconium complex obtained in Example 3.

Yet, none of these manipulations of the compound of Example 1 results in a compound that conforms to claimed structure Ia. For instance, metal complexation does not change the fact that the compound fails to satisfy the definitions of moieties Z' and B'. The product in Example 7 similarly is not a compound of structure Ia.

For all of these reasons, Wolter fails to anticipate. Accordingly, Applicant respectfully requests the PTO to reconsider and withdraw the rejection.

**IV. The Claims Are Patentable Over Wolter**

The PTO rejected claims 1, 6, 7, 9, 11, 13-14 and 40-43 under 35 U.S.C. 103(a) for being allegedly unpatentable over Wolter. Office Action at page 4. The PTO correctly asserted that Wolter fails to teach a specific silane compound as defined in claims 6, 9, 11, 13-14 and 40-43. *Id.* at 5. However, the PTO alleged that it would have been *prima facie* obvious to the skilled artisan to arrive at the silane compounds recited in claims 6, 9, 11, 13-14 and 40-43 simply by making any of the compounds taught generically by Wolter. *Id.*

The PTO's obviousness analysis critically hinges on a mere possibility that the skilled person seeking to make any and all silane compounds of Wolter would stumble upon a silane compound that conforms to present formula Ia. The analysis constitutes legal error because it falls short of the express fact finding that is incumbent upon the PTO in making a *prima facie* case of obviousness. Accordingly, Applicant respectfully traverses the rejection.

“The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness.” MPEP 2144.08(II). Accordingly, PTO guidelines and controlling patent law require the PTO to “articulate what teachings or suggestions in the prior art would have motivated one of ordinary skill in the art to select the claimed species or subgenus.” MPEP 2144.08(II)(A)(5).

Here, the PTO’s rejection rests on the unsupported allegation that a genus by Wolter somehow renders obvious the claimed compound of formula Ia. In light of the principles above, however, the allegation alone fails to manifest a *prima facie* case of obviousness because it fails to articulate exactly what would motivate the skilled person to select the genus of formula Ia. Accordingly, the PTO has failed to meet its initial burden in alleging obviousness based upon Wolter.

Even if it is assumed, *arguendo*, that the skilled person would set out to make all the compounds subsumed under the genus taught by Wolter, nothing in the reference constitutes a principle or methodology that guides the person to formula Ia. More specifically, the genus taught by Wolter, formula I, contains at least 12 variables whose definitions engender thousands of possible combinations. *See* col. 2, line 48 to col. 4, line 44.

The only guidance given by Wolter as to more narrowly defined compounds leads to those that fall outside the scope of the present claims, as the PTO has acknowledged. Thus, Wolter does not hint at a selection from or overlapping with formula I that is a compound of present formula Ia.

For these reasons, the PTO’s rejection has not established *prima facie* obviousness, but to the extent it has, Wolter fails to support the rejection. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection.

### CONCLUSION

Applicant believes that the present application is now in condition for allowance. Accordingly, Applicant respectfully requests favorable reconsideration of the application. If Examiner Price believes that any lingering issues warrant discussion, he is kindly invited to contact by telephone Applicant's undersigned attorney at the number below.

Respectfully submitted,

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By Steven M. Reid

FOLEY & LARDNER LLP  
Customer Number: 22428  
Telephone: (202) 295-4767  
Facsimile: (202) 672-5399

Steven M. Reid, Ph.D.  
Attorney for Applicant  
Registration No. 54,393

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.